

ABSTRACT OF THE DISCLOSURE

The present invention provides a method and system for clock and carrier recovery in a direct sequence spread spectrum communication system. The process involves the receiver receiving a digital signal that has been transmitted by a remote transmitter. The
5 method for joint clock and carrier recovery comprises the following steps. The received signal is down-converted and the signal is then converted to digital form. The signal is de-spread to obtain the phase of the signal constellation. The clock error at the receiver is then estimated from the phase error of the signal constellation by means of an optimal linear estimator. The discrete carrier frequency offset of the received signal is
10 then estimated from the estimated clock error. The optimal linear estimator used here for estimating the clock error is also the maximum likelihood estimator.